1. Evaluate when x=3. (4 pts)
2. Classify the polynomials by degree and number of terms: (9 pts)
3. Describe the end behavior for the following functions: (9 pts)
4. Find any local minima and maxima for the following functions. Sketch the graph of each function: (8 pts)

1. Divide: . (6 pts)
2. Factor and solve each equation: (20 pts)

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1. Use the graphing calculator to find the rational roots (zeroes) of the following functions. Sketch each graph. (10 pts)

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**Extra Credit:**

is a factor of , so +2 is a real solution of the polynomial. Find the other (imaginary) zeroes of the polynomial.